



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/665,355	09/22/2003	Sang Moon Suk	IPS-0013	4921
34610	7590	02/25/2008	EXAMINER	
KED & ASSOCIATES, LLP			SHERMAN, STEPHEN G	
P.O. Box 221200			ART UNIT	
Chantilly, VA 20153-1200			PAPER NUMBER	
			2629	
			MAIL DATE	
			DELIVERY MODE	
			02/25/2008	
			PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

10/665,355

**Applicant(s)**

SUK, SANG MOON

**Examiner**

Stephen G. Sherman

**Art Unit**

2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Priority*

1. Acknowledgment is made of applicant's claim for priority under 35 U.S.C. 119(a)-(d) based upon an application filed in Japan on 19 September 2002. A claim for priority under 35 U.S.C. 119(a)-(d) cannot be based on said application, since the United States application was filed more than twelve months thereafter.

### *Claim Rejections - 35 USC § 112*

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 3 and 4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- 4.

**Regarding claim 3**, the claims states "an induced signal waveform converting circuit for receiving and converting the signal detected by the wire into", then on the next page of the claims is claim 4. Thus, the claim is not finished. Therefore, there is no way for the examiner to possibly know what is meant by the claim, specifically what the

signal is converted into. The claim is unclear and the examiner cannot possibly examine the claim since it is unclear what the claim means. Claim 4 depends from claim 3 and thus is rejected based on its dependency.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims 1-2 and 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA (Figure 1 and paragraphs [0002]-[0008] of the specification) in view of Akiyasu (JP 2002-199613 A).

**Regarding claim 1**, AAPA disclose a voltage stabilizing circuit for a high-voltage/deflection separation type video display appliance (Figure 1), comprising:

an SMPS transformer for receiving an electric power through its primary winding and deriving voltage in its secondary winding (Figure 1, T1 and paragraph [0005]);

a PWM control circuit for receiving electric power from a regulation compensating circuit to output a PWM control signal corresponding to the received electric power (PWM control circuitry 100 and paragraph [0006].); and

a switching section for switching the input electric power inputted to primary winding of the SMPS transformer according to the PWM control signal from the PWM control circuit (Figure 1, Q1 and paragraph [0005]).

AAPA fail to teach a regulation compensating coil for inducing an electric power corresponding to the electric power from the secondary winding of the SMPS transformer and of the PWM control circuit receiving electric power induced on the regulation compensating coil.

Akiyasu discloses a voltage stabilizing circuit comprising a regulation compensating coil for inducing an electric power corresponding to electric power from the secondary winding of a transformer (Drawing 1 shows coil 10C) and of a PWM control circuit for receiving electric power induced on the regulation compensating coil (Drawing 1 shows the coil 10C being connected to an input of the PWM 6).

Therefore, it would have been obvious to "one of ordinary skill" in the art at the time the invention was made to use the coil taught by Akiyasu in the voltage stabilizing circuit taught by AAPA in order to reduce the power consumption of the device.

**Regarding claim 2**, AAPA and Akiyasu disclose the voltage stabilizing circuit as claimed in claim 1.

AAPA also disclose the voltage stabilizing circuit further comprising a waveform converting section for synchronizing a frequency of the PWM control circuit with a horizontal frequency (Figure 1, waveform-converting section 120.).

**Regarding claim 5**, AAPA and Akiyasu disclose the voltage stabilizing circuit as claimed in claim 1.

AAPA also disclose wherein the switching section comprises a transistor for performing a switching operation according to the PWM control signal, and its emitter collector terminals are connected between one end of the primary winding of the SMPS transformer and ground (Figure 1 shows that Q1 has its emitter and collector terminals between the primary winding on T1 and ground.).

**Regarding claim 6**, AAPA and Akiyasu disclose the voltage stabilizing circuit as claimed in claim 1.

AAPA also discloses the voltage stabilizing circuit further comprising a rectifier circuit, connected to the secondary winding of the SMPS transformer, for rectifying the voltage outputted from the SMPS transformer (Figure 1 shows the rectifier circuit comprising D1, D2, C2 and L1).

**Conclusion**

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Coyne et al. (US 5,831,837), Balakrishnan et al. (US 6,882,134), Ri et al. (JP 06-292360), Haga et al. (JP 2000-232777), Koizumi et al. (JP 05-328718) and Inao et al. (JP 05-137335) all disclose of a coil for inducing an electric power corresponding to the electric power from the secondary side of a transformer.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen G. Sherman whose telephone number is (571) 272-2941. The examiner can normally be reached on M-F, 8:00 a.m. - 4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on (571) 272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number:  
10/665,355  
Art Unit: 2629

Page 7

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SS

17 January 2008

AMR A. AWAD  
SUPERVISORY PATENT EXAMINER

A handwritten signature in black ink, appearing to read "Amr A. Awad", with a long, sweeping horizontal stroke extending to the right.